

ACTIVITY REPORT 2025

ETIRA: WORKING FOR ALL REMANUFACTURERS AND PARTNERS

Contents





ETIRA is the non-profit trade association for the European companies involved in state-of-theart toner and/or inkjet remanufacturing and their business partners. Every day, remanufacturers bring the European consumers and businesses a first-class high quality product which is competitively priced and, thanks to re-using natural resources, makes a major contribution to the European environment and a cleaner world. Yearly, the industry adds an average 1,5 bn euro to the European economy, directly and indirectly provides 16,000-20,000 jobs, and prevents 300,000 m3 of waste from going to landfill. Visit **www.etira.org** for more information. During the period covered by this Activity Report (2023-2025), our industry witnessed the EU taking leaps to enhance reuse, not seen since our creation in 2003. Based on the EU Green Deal, a large package of EU policy initiatives affecting our industry was approved. As you can read in this Activity Report, many of these policies are favorable to our industry, and will help to grow the market share of remanufactured cartridges EU-wide. The upcoming EU ecodesign regulation for our industry is the victory that ETIRA has fought for since our creation in 2003, and the living proof that ETIRA delivers results for its members.

And since March 2024, after careful analysis of the EU JRC's Preparatory Study on printers and cartridges that underscored cartridge reuse, we started a new attack. We fiercely oppose the trade in new non-OEM cheap, polluting, unsafe and unhealthy single-use cartridges (SUC's) from SE Asia. By exposing their frequent lack of compliance with EU laws and regulations, and by pushing for strict enforcement by the market surveillance authorities, ETIRA's "Call for Compliance" focused on chemicals aspects of these cartridges. Today, ETIRA is an ECHA Accredited Stakeholder, and has notified the authorities of the many violations of REACH and CLP rules by these SUC's.

The world today seems more uncertain than ever, and Europe is not an exception but an example of "lack of preparation for war", being it either military or trade. Is this an opportunity to make Europe lead the world? As Europeans we have been suffering for years from massive imports of non-compliant illegal products coming from China, which clearly represents unfair competition. These products reach the consumer via online platforms like Temu, Shein, Amazon etc. They are now a hot topic both in the European Parliament and in the EU Commission, under the "safe and sustainable imports initiative" which will start impacting the market already in 2025 Q2. ETIRA is moving as fast as we can to engage in this initiative, and we already started a "Name and Shame campaign". Many more actions are close to being implemented, but since "SignalGate" we all know when not to disclose sensitive information......

I express my gratitude to ETIRA members for their confidence in our Board of Directors and myself. When re-elected back in 2023, I announced that that appointment would be my last: after 6 years of dedication, this year it would be time for new impetus at the helm of ETIRA, and around the industry. However, as the upcoming EU ecodesign regulation for imaging equipment and cartridges is not yet finalized, changing a winning team mid-match could harm the wins we scored to date: our technical inputs, industry knowledge, but also our long-term personal contacts with regulators all proved instrumental in getting us to where we are today. And with some other stakeholders seeking to water down the draft regulation, the current Board and I consider it vital to see this process through all the way to the end. We will do our best to shape the market in a way favorable to the industry, and hope that 2025 will see the first ever "Product Compliance sweep" across our industry.

Thank you for your interest in cartridge remanufacturing, and in ETIRA. Visit www.etira.org to stay infomed. And don't hesitate to talk to us anytime you want: info@etira.org.

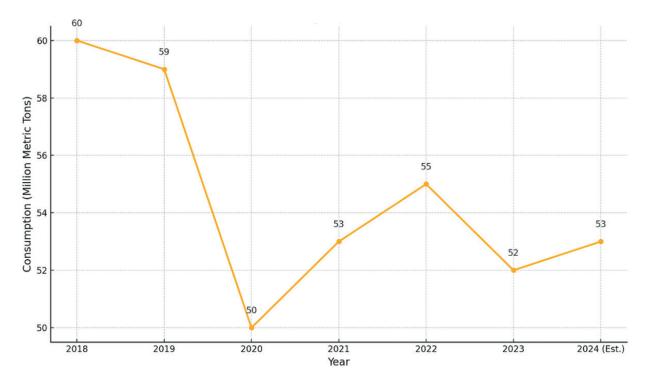
Javier Martínez

President of ETIRA Castelldefels, Espana, May 2025



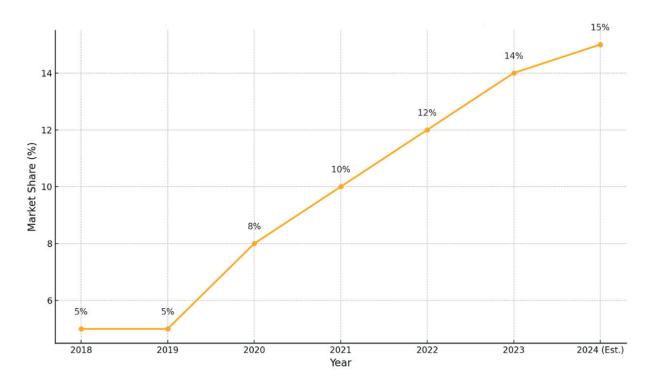
General Market Developments

The European office imaging sector is undergoing a marked transformation, shaped by three converging trends. Print volumes continue to decline as hybrid working and digital workflows become the norm, pushing the industry to rethink value. At the same time, demand for remanufactured hardware is on the rise, driven by cost efficiency and a growing focus on sustainability. Yet, OEM- imposed firmware restrictions and a surge in non-compliant cartridges remain significant obstacles. In this evolving landscape, the idea of Purposeful Print—where printing is more targeted, efficient, and environmentally responsible—is gaining traction as both a strategy and a philosophy to navigate the years ahead (*Graphs: Connett & Unland GbR*).

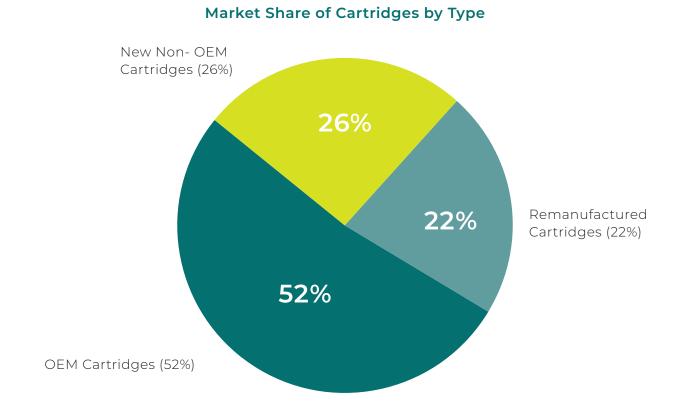


Global Printing and Writing Paper Consumption (2018 - 2024)

The Rise of Refurbished Printers: Market Share Growth (2018 - 2024)



Unfortunately, the remanufactured OEM cartridge market remains under material pressure. Remans are squeezed between new OEM cartridges, and cheap non-OEM singleuse newbuilt cartridges ("SUC's") that swarm the EU market. The planned EU regulation (see separate section in the Activity Report) should help to grow the market share of remanufactured consumables as of 2026.





Barriers to Cartridge Remanufacturing

Remanufacturing empty cartridges is good for the environment. The largest environmental impact from printing comes from the many cartridges and paper used in the printer during its lifetime, not from the printer as such. Reuse of cartridges can reduce CO2 emissions by 45%-60%. That is why several cycles of reusing a cartridge as a cartridge, followed by recycling of its composing materials, is the most environmental-friendly option and should be promoted.

Cheap new non-OEM polluting, unsafe illegal single-use cartridges (SUC'S)

Currently, as recognized in the JRC Preparatory Study, a major barrier to reusing an OEM cartridge as a cartridge, is the unlimited number of cheap new non-OEM cartridges in the market. Every day, thousands of cheap newbuilt non-OEM single-use cartridges (SUC's) are imported into the EU from SE Asia. Often these products infringe OEM patents and sold at dump price levels. More importantly, they are bad for the environment as they are neither collected nor remanufactured, and often violate EU health and safety rules. Unfortunately, traders who do not care about patents, quality, public safety or the environment, sell these products to unaware European customers every day.

ETIRA opposes the trade in these newbuilt cartridges because it is an offense and unsafe. Resellers and distributors trading these products engage in anti-environmental and anti-social behaviour: these Asian cartridges often pollute the European environment as they are neither remanufactured (that would be just as illegal as manufacturing them) nor recycled. They are simply thrown away after 1st use, resulting in unnecessary extra landfill in Europe. European individuals or companies caring about sustainability should only buy remanufactured OEM cartridges.

ETIRA tests of 50 cartridges show new non-OEM cartridges seldom comply with EU rules

Between July and October 2024, ETIRA tested 50 non-OEM newbuilt non-OEM cartridges and remanufactured OEM cartridges purchased in Germany, France, the Czech Republic, Romania, Spain, and Italy from 25 different suppliers. The findings paint a stark picture: from the newbuilt non-OEM cartridges, 75% failed basic documentary compliance checks re. CE and wheelie bin marks, national WEEE registries, packaging registry, Declaration of Conformity, accurate supplier information. Many had a CE logo without meeting the EU standards it stands for. We even found newbuilts labeled as being remanufactured OEM cartridges!

From the remanufactured OEM cartridges, 85% were compliant, with only one supplier missing WEEE registration.

The findings echoed previous ETIRA tests, which revealed high levels of hazardous chemicals, including decaBDE, in newbuilt non-OEM cartridges. Such practices endanger the environment and public health and jeopardize the EU's circular economy goals, with over 30% of the market estimated to operate illegally.

The shocking findings show poor enforcement of EU regulations. Stronger oversight is critical to protect the environment, consumer health, and the businesses committed to compliance and sustainability.

ETIRA call for boycott of G&G, Ninestar products, following USA import ban

In June 2023, the US banned all imports of products from Chinese companies Ninestar and subsidiaries and 8 Zhuhai-based subsidiaries, including Pantum Electronics., Apex Microelectronics, G&G Digital Technology, under their Uyghur Forced Labor Protection Act*. These companies were added to a US government list that includes *"entities working with the government of Xinjiang to recruit, transport, transfer, harbor or receive forced labor or Uyghurs, Kazakhs, Kyrgyz, or members of other persecuted groups out of Xinjiang**. As a result, the US banned all imports of products, such as cartridges, equipment, components, etc.

The US prohibition had worldwide impact because these products are traded globally. And while there is no official import ban (yet?) in wider Europe, there is the clear ethical question of "do we want to allow such practices" here?" Therefore ETIRA called on all European companies and public bodies to stop the purchase of products from these companies. All European businesses must ensure that their products are not related to forced labor in any way, to avoid Code of Conduct violations and other assurances they give their customers about their products. ETIRA recommends European consumers and businesses to buy reuse OEM cartridges from trusted suppliers in wider Europe, and asks public bodies and local governments to lead by example.



EU action to enhance enforcement of market surveillance

ETIRA welcomes the introduction of better inspection tools for national Market Surveillance Authorities. This 2025 EU policy requires all products sold in the EU– whether sold directly, online or through a fulfilment service provider – to be registered with an official responsible party based in the EU. A 'responsible party' can be a manufacturer, importer, distributor, fulfilment service provider or 'authorised representative'.

According to ETIRA, knowing who placed products on the EU market is key to holding suppliers and manufacturers to account when it comes to compliance with product safety rules, hazardous content, etc. The new legislation provides more tools for the national authorities to ban products at the EU border and impose penalties on companies offering infringing products on the EU market. Online platforms are required to fulfil the same obligations as other importers and cannot dodge their responsibility and liability for products offered on their websites etc.

ETIRA and its members have pointed national authorities to online platforms and other market places offering "orphan' cartridges that fail to comply with the new rules.

ETIRA PR campaign calling for urgent EU action against SUC's

To counter the tsunami of imports of SUC's, ETIRA started an EU-wide PR campaign early 2025, calling on all responsible stakeholders -remanufacturers, OEMs, wholesalers, distributors, retailers, repair and recycling businesses, public sector buyers, and environmental organisations—to join us in demanding urgent action from the European Commission. ETIRA is calling on the European Commission to:

- Prioritise enforcement by designating printer cartridges as a Priority Control Area (PCA), ensuring proper oversight by Market Surveillance Authorities (MSAs) and the European Chemicals Agency (ECHA).
- Hold online marketplaces accountable for enabling the sale of non-compliant products, making them share responsibility for compliance enforcement.
- Introduce a system similar to the Digital Product Passport (DPP) for printer cartridges, ensuring transparency, compliance verification, and informed consumer choices.
- Strengthen border controls and customs enforcement to prevent non-compliant products from entering the EU market.
- Embed sustainable public procurement rules to ensure that public sector buyers prioritise genuine remanufactured products over disposable, non-compliant imports.
- Increase funding and resources for Market Surveillance Authorities (MSAs) to enforce compliance effectively.



OEM barriers to easy cartridge reuse

Unfortunately, OEM's apply a wide variety of tools to hinder the growth of our industry. Examples of the tools they use are listed below (non-exhaustive list).

The upcoming EU ecodesign regulation of the printing industry (see the section "Environment" in this Annual Report) will end many of these barriers!

• No eco-design: cartridges not designed to allow easy reuse

Most cartridges today are not designed in a way that makes remanufacturing very difficult or even impossible. In the 1990's, many cartridges only had screws to fit parts together. Since then, cartridge parts are glued together. The only reason why OEM's have changed to glue is to make remanufacturing of the cartridge very hard or even impossible.

• Embedded software preventing the reuse of the cartridge

Today, almost every cartridge is fitted with embedded software/clever chip. The software creates the handshake with the printer: without it, the printer does not recognize the non-OEM cartridge and will not print, or the printer gives confusing messages to the end-user. As a result of this OEM anti-reuse strategy, it has become impossible for a growing number of cartridge models to be remanufactured by 3rd parties. Moreover, end-users are reluctant to buy remanufactured cartridges as they fear that non-OEM cartridges may not work in their printer, creating more waste cartridges.

Printer firmware updates locking out non-OEM cartridges

Throughout the printer's lifecycle, a user receives many overnight software (firmware) updates from the printer manufacturer. But often, as a side-effect of this unsolicited update, the printer no longer recognizes the non-OEM cartridge, even though it used to work perfectly fine prior to the update. As a result, remanufacturers often need to replace or reset or replace the installed remanufactured cartridge.

OEM's usually claim that the update is necessary for "improved functionality, technical requirements, etc". But updates can always be designed in such a way that they do not lock out 3rd party remanufactured cartridges. ETIRA opines that many OEM's perform these firmware updates only to discourage customers to use 3rd party remanufactured cartridges. In 2020, the Italian fair competition regulator fined HP a 10 million euro penalty, because the firmware system used by HP blocked printing when it recognizes non-original or outdated cartridges, unfairly limits the use of non-HP cartridges.

• No sharing of information or licensing of how to remanufacture

OEM's do not make the information needed for remanufacturing available to customers or 3rd parties in any way. The software and clever chips which are present on every cartridge today all have proprietary codes owned exclusively by the OEM. These are business confidential data and not publicly available. And OEM's do not offer the codes to 3rd parties under a licensing arrangement either.

Hence the remanufacturing industry must reverse-engineer these codes. This is a complex technical activity performed only by specialized high-tech companies. For each cartridge model, they are forced to invest millions of euro's and 1-2 years of work in decoding the respective cartridge chip, and due care must be taken not to infringe patents.

Blocking aftermarket chips

With a generic aftermarket chip developed by 3rd parties, a cartridge can be used again, and such chips have been around for years. But some OEMs recently started to block them under the pretext of providing more internet security for the customer. But according to ETIRA, the real reason is to block the reuse of the cartridge so that the user is obliged to throw it away after first use and buy a new one.

• Limited printer functionality when non-OEM cartridges are used

Printer manufacturer increasingly add functions to the printer that are only available if you use original OEM cartridges. So doing, buyers may be reluctant to buy non-OEM cartridges for fear the printer may not work!

Obliging customers to not sell remanufactured cartridges

Some OEM's oblige their customers to sell only OEM cartridges. If these distributors do not comply, OEM's will withdraw that customer's benefits and rebates. As a result, remanufacturer access to these sales channels is blocked.

Closed-shop customer supply programmes

Many OEM's have sales programmes whereby they sell both the printer and the full supply of cartridges during the lifecycle of that printer (MPS). But as OEM's only offer new cartridges and do not reuse the cartridges they collect after 1st use, this sales programme also locks reuse cartridges out of the market.

• Closed-shop collection programmes for used cartridges

Many OEM's have company-own collection programmes for empties. ETIRA estimates that OEM's collect only 10-15% of all cartridges they place on the market. But after collection, these empties are generally not remanufactured to be used as cartridge again, but merely recycled: they are taken apart and their materials are shredded, plastics melted, and partially used as base material to produce other products.

Several OEM's showcase their cartridge collection and recycling activities as being good for the environment. However, the environmental footprint of mere recycling is much higher than if the empty would first be reused as a cartridge in several cycles, followed by final recycling. Clearly, the OEM's only objective with merely recycling their collected empties, is to reduce the number of empties available for remanufacturing by others!

- Intellectual property rights (patents) and aggressive legal actions against remanufacturers

Most OEM's have registered thousands of national and EU-wide patents on part(s) of, or on the entire cartridge, which can make (re) manufacturing that cartridge illegal. Very often, the patents concern in particular those parts of the cartridge that are subject to wear and tear, which makes it impossible to legally exchange these parts, yet is needed in order to produce a quality alternative product.

- OEM patents on remanufacturing

Patents on remanufacturing are a permanent problem for our industry. Some OEMs apply for patents which merely seek to render the legitimate activity of remanufacturing OEM cartridges impossible, even when they do not remanufacture cartridges themselves. Thus, they pro-actively prevent the environment-friendly reuse of their product, only for commercial reasons. Moreover: the European Patent Office EPO grants patents far too easily, i.e. even for ideas which were fully obvious to a person skilled in the art, or without a proper analysis of the existing prior art, etc.



Warranties

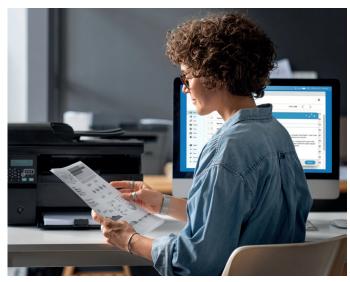
Sometimes printer manufacturers or maintenance firms refuse to honour the printer warranty simply because non-OEM cartridges were used in the printer. But in accordance with EU and national law, a manufacturing company cannot argue that the printer warranty is null and void just because non-OEM cartridges were used: for the warranty to be justifiably refused, there must be clear and undisputed proof that the malfunction of the printer was directly caused by the non-OEM cartridge. If this proof cannot be provided, the warranty must be honoured in full.

• Leaving the OEM logo on a remanufactured OEM cartridge:

Remanufacturers question whether is it allowed to leave the OEM logo on the remanufactured cartridge. After all, a 2nd hand car is also resold under its original brand name. ETIRA commissioned a legal opinion addressing this question. The opinion is available to ETIRA members.

Data collection

Some OEM's collect data from printer users through a 24/7 online connection between the printer and its manufacturer, often without the knowledge or consent of the printer user. The data collected ranges from print frequency and cartridge type to the date and location of printing and in some cases even the scans made are collected. This information is used to construct a comprehensive customer profile. And some printer distributors are required to inform the printer manufacturer of each printer purchase, providing the manufacturer with even more data to refine his customer profiles. According to ETIRA, such practices blatantly



contravene EU privacy and data collection regulations like GDPR and similar national laws, and therefoere we ask regulators to intervene. ETIRA also refers to the 10 million euro fine imposed on HP by the Italian fair competition regulator in 2020 because the regulator found that without informing printer users, HP recorded cartridge consumption data through the printer's firmware.

Offering 2 types of the same printer

Some OEM's sell 2 types of the same printer: one that works only with original OEM cartridges, and another equal but more expensive printer that may allow non-original cartridges. This pushes customers to buy the more polluting cheaper printer that locks out non-original cartridges.

The above list of barriers to cartridge reuse was compiled by ETIRA, but the 2024 "Imaging equipment and its consumables, Preparatory study for ecodesign study" by the EU 's JRC body also lists many of these barriers.

Public tenders blocking reuse

In the EU, an upfront exclusion of remanufactured cartridges from participating in a public tender is illegal. Objecting against such public tenders is a quasi-permanent task for ETIRA. It is unfortunate that we continue to see public bodies still not fully complying with EU law on free competition, and illegally excluding remanufactured a fair and equal opportunity to tender. But as this is a matter of principle for our industry, we continue to protest everywhere we find these illegal exclusions. In 2023/2025, ETIRA officially protested against approx. 25 different tenders in Germany, Spain, Italy, Romania and France that initially excluded remanufacturing cartridges from taking part in the tender. In most cases, the public authority then caved in and allowed remans to take part after all.

And all this should not be necessary: Italy, France, Czech Republic and a few other EU countries have legislation that obliges public bodies to give preference to environmentalfriendly products when issuing a public tender, thus promoting remanufactured cartridges.

In 2020, the EU published new recommended criteria for public tenders for imaging equipment. These criteria clearly favour remanufactured cartridges. ETIRA calls for these criteria to become compulsory.

Promoting Quality Remanufacturing



Product quality is the #1 priority of ETIRA: only if our product is as good as, or better than, the OEM-equivalent, are we able to grow our market share. This is why most of our efforts focus on enhancing quality across the industry. ETIRA Members do not compromise when it comes to quality: only the best will do. ETIRA welcomes pan-European and global standards that set clear parameters, and are widely recognized.

ETIRA contributes, directly or indirectly, in the development of the following standards:

ISO cartridge standards

To measure cartridge yield, ISO has developed standards 24711 (ink), 19752 (toner B/W) and 19798 (color toner). ISO product standard 29142 for cartridges applies to OEM, compatible and remanufactured cartridges alike, and covers labelling and environmental performance criteria. The entities participating in the ISO work are predominantly the major international OEM's. Some manufacturers of newbuilt compatibles, and a few remanufacturers also contribute to the work of this ISO Working Group. Being a trade association, ETIRA does not directly participate in ISO.

• DIN standards for remanufactured cartridges

DIN standards for cartridges 33870-1, 33870-2 and 33871-1 apply only to remanufactured cartridges. The standards can be obtained from DIN.

• ISO standard 8887 on remanufacturing/ design for reuse

ISO has standard 8887 "Design for manufacture, assembly, disassembly and end-of-life processing (MADE)". Although this is a general standard on generic remanufacturing, it also affects products like cartridges.

Environment and Health: Eu Policy Initiatives



Today, most printers are not used to capacity. Research has shown that most printers are made redundant way too early. The OEM business model forces users to buy a new printer long before it has reached its technical end of life. This is an unacceptable waste of natural resources, and results in excessive and unnecessary greenhouse gas emissions.

The EU has defined a clear hierarchy in the environmental impact of waste: prevention of waste has the lowest impact, and re-use (=remanufacturing) follows immediately after that, so before recycling. With re-use prevailing over recycling, re-use should always be the preferred option.

To raise awareness of the benefits of cartridge reuse, ETIRA permanently lobbies EU and national authorities and participates in seminars, meetings, working groups, etc. Reuse should receive a higher priority than it has today, as existing eco-friendly policies often fail to deliver a tangible increase in reuse. Legislative tools should include strict regulatory, not voluntary, action on eco-design (no clever chips !) and the removal of legal barriers which frustrate remanufacturing. And governments need to lead by example: public tenders should reserve a compulsory minimum percentage of the tendered volume for remanufactured products.

During the last years, we successfully lobbied for favourable wording in the EU ecodesign criteria for imaging equipment, the EU Ecolabel for imaging equipment, the EU criteria for green public procurement (GPP), the US public procurement scheme EPEAT, the Nordic Ecolabel (=formerly "Nordic Swan"), the EU 2018 study on cartridge reuse, the 2020 reform of the Voluntary Agreement Imaging Equipment, the 2025 upcoming EU regulation of the industry, the EU rules against greenwashing, and right to repair, etc. etc.

Our efforts paid off in full as the EU has adopted many green policy initiatives that will support cartridge reuse.

EU Circular Economy policies and ETIRA actions

Following ETIRA lobbying, a 2018 EU Commission case study on cartridge reuse acknowledged that the EU regulatory environment was not well suited to promoting reuse of products. The study supported developing an EU Ecolabel criteria for remanufactured cartridges, and called for improved access to cartridge design and consumables specifications, revising the EU GPP criteria, reviewing the Voluntary Agreement, etc.

In March 2020, the EU Commission adopted the Circular Economy Action Plan (CEAP), as part of the European Green Deal, Europe's sustainable growth agenda. The CEAP supported the 'right to repair', including a right to update obsolete software. Other measures include improving the collection and treatment of waste electrical and electronic equipment.

Upcoming compulsory EU ecodesign regulation on the imaging equipment and consumables industry

For many years a VA Imaging Equipment was in force in the EU. It contained some voluntary environmental impact reduction commitments from the OEM's for their printers, but excluded cartridges. Hence ETIRA always insisted that cartridges be included in any VA. Like NGO's, Member States and others, ETIRA insisted that products should be designed with their environmental footprint in mind (Ecodesign) during production, operational life, and at end-of-life. In March 2022, the EU Commission rejected a draft new VA proposed by printer manufacturers (EuroVAprint) and some remanufacturers, and decided that it would abandon the voluntary approach and make a binding EU ecodesign regulation for the imaging equipment and consumables industry (based on EU Directive 2009/125/EC re. ecodesign requirements for energy-related products). The regulation will have a format similar to existing EU ecodesign regulations for other IT products (e.g EU Regulation 2023/1670 on smartphones etc.)

ETIRA welcomed this decision: since the creation of ETIRA, we insisted that only compulsory measures would convince the OEM's to really embrace cartridge reuse as a cartridge. To prepare the industry legislation, a preparatory study and impact assessment (IA) are required.

In February 2024, the EU's research body Joint Research Centre (JRC) published its long-awaited "Imaging equipment and its consumables. Preparatory Study for Ecodesign.Preparatory Study". The 300-page report evaluates the current status of the imaging equipment market, user behaviour and technology aspects of this sector. Issues with environmental relevance were identified. Devices seem to operate under short replacement cycles, despite the willing of consumers of prolonging their lifetime. Prevalent business models and high cost of repair partially explain this short lifetime of printers. Regarding cartridges, the study found that main environmental issues are related to low reuse rates, usually caused by technical barriers introduced during the design phase.

In July 2024, the EU Commission presented a draft of the planned EU ecodesign regulation for printers and cartridges to the EU's Ecodesign Consultation forum. The proposal is based on the recommendations made in the JRC's February 2024 Preparatory Study, and includes detailed compulsory rules for increased printer durability and repairability and cartridge reusability. It obliges OEMs to make spare parts easily available, provide repair instructions to professional repairers, and firmware / software updating tools and remanufacturing instructions to professional remanufacturers for a reasonable fee. It says cartridges must be reusable, and tracking/ tracing info enabling detailed info re. the previous cartridge-life should be included. Inflammatory warning messages when using non-OEM cartridges are used will be prohibited. It also advocates optimising energy savings, paper consumption, incorporating post-consumer recycled plastic, and a repairability score for printers. As requested by ETIRA, the proposed regulation does not oblige remanufacturers to provide confidential production / business information or to set a quality standard only for reman carts.

ETIRA considers the proposal as acceptable overall, although we seek some

Other areas where cartridge environmental performance can improve are the optimisation of their capacity, or the design of more material efficient configurations. Environmental and economic assessments of typical products are listed, and design options with the potential to reduce the environmental impact have been identified and evaluated. The study proposes ecodesign measures like increasing printer lifetime, tackling the barriers against cartridge reuse, among others.

As key stakeholder, ETIRA had provided extensive data input to ensure the upcoming legislation will favour cartridge reuse. Many European NGO's and EU member states are also key stakeholders and many support our cause.

In 2024, the EU started work on the impact assessment. ETIRA has provided extensive comments. The IA will be ready by summer 2025.

improvements. The regulation should prevent OEMs from circumventing their obligations and should enter into force as soon as possible. Moreover, the rules should apply to all printer models and to the installed printer fleet.

Member States and NGOs support our views overall. However, OEMs consider that the rules oversimplify the complexity of printers. They seek fewer obligations and much longer implementation windows.

According to the EU's timetable, the regulation should be approved and published in late 2025/early 2026. Its obligations will implemented gradually.

ETIRA has called for this legislation since 2003. It wil bring a major boost to the industry, and proves that etira's multiannual lobby work was succesful. The indirect deliverable of the regulation will be more cartridge reuse, and a reduction in clone imports.



EU Ecodesign Directive replaced by Ecodesign for Sustainable Products (ESPR) Regulation

The 2024 EU regulation on Ecodesign for Sustainable Products (ESPR) Regulation succeeds the EU Ecodesign Directive. The ESPR sets new requirements to make products more durable, reliable, reusable, upgradable, reparable, easier to maintain, refurbish and recycle, and energy and resource efficient. In addition, product-specific information requirements will ensure consumers know the environmental impacts of their purchases. All regulated products must have a Digital Product Passport. This will make it easier to repair or recycle products and facilitate tracking substances of concern along the supply chain. The ESPR incentivizes sustainable products and enables mandatory green public procurement criteria to be set, making use of contracting authorities' economic power. The new measures will strengthen market surveillance and enforcement, boost compliance and ensure a level-playing field for all placing products on the EU market.

NB: the upcoming specific EU ecodesign regulation on the imaging equipment sector is planned to be finalized under the outgoing Ecodesign Directive.



New EU Directive on Greenwashing

In March 2024, EU Directive 2024/825 entered into force. This Directive requires businesses to provide clear, relevant and reliable information on the sustainable nature of the product, and aims to stop misleading environmental claims ("greenwashing"), misleading information about the social characteristics of the product or the traders' businesses (e.g. labor conditions, human rights, environmental performance), nontransparent sustainability labels, and practices associated with the early obsolescence of goods (=deliberately designing a product in such a way that it prematurely becomes non-functional). The Directive explicitly says that the practice of urging the consumer, via the settings of the printer, to replace the printer ink cartridges before they are actually empty, merely to stimulate the purchase of additional ink cartridges, is prohibited. The Directive also prohibits the withholding of information from the consumer about the impairment of the functionality of a good when using consumables, spare parts or accessories that are not provided by the original producer. The Directive explicitly mentions our industry as an example: *"if a printer is designed in such* a way that its functionality is limited when using ink cartridges not provided by the original producer of the printer, that information should not be hidden from the consumer because such a practice could mislead the consumer into purchasing an alternative ink cartridge which cannot be used for that printer, thus leading to unnecessary waste streams or additional costs for the consumer. Similarly, if a smart device is designed in such a way that its functionality is limited when using chargers or spare parts that are not provided by the original producer, that information should not be hidden from the consumer at the time of purchase. It should also be prohibited to mislead the consumer into believing that using consumables, spare parts or accessories not supplied by the original producer will impair the functionality of a good when this is not the case."

There will be a harmonised label for products in the European Union with information on the commercial sustainability guarantee. In addition, environmental characteristics, social characteristics and circularity aspects will be added to the list of main characteristics of a product in respect of which a trader's practices can be considered misleading Green claims' will be prohibited if they are not supported by clear, objective, publicly available and verifiable commitments and targets. Such claims should also be verified by a third party expert, whose competence and independence from both the scheme owner and the trader are ensured based on international, Union or national standards and procedures. The Directive must be transposed into national laws by March 2026.

ETIRA fully supports this legislation. The fact that it explicitly mentions cartridges as example proves that ETIRA's outreach efforts were successful!

EU Green Claims Directive to end unsubstantiated "green" claims

In March 2023, the EU Commission proposed a Directive on substantiation and communication of explicit environmental claims (Green Claims Directive). While the EU Greenwashing Directive 2024/825 adresses all sustainability aspects, so including social / labour issues, the Green Claims Directive focuses only on environmental claims and labels that are not substantiated. The Green Claims Directive will apply to companies with over 10 employees and annual turnover of at least 2 million euros. Companies must back their environmental claims and labels with clear criteria and up-to-date scientific evidence. The claims and labels should be straightforward and specify the environmental characteristics they address, such as durability or recyclability, e.g. through Life Cycle Assessments (LCAs).

Self-certified labels should be prohibited, and there will be safeguards to enhance ecolabel quality, requiring transparency and credibility checks on ownership, decision-making bodies, and objectives. It addresses both current and future environmental labelling schemes, whether public or private. New eco-labels from public and private operators, whether inside or outside the EU, are prohibited unless they demonstrate their value to the EU market. The Directive is expected to enter into force in 2026, and then Member States have 18 months to transpose it into national law.

According to ETIRA, the Green Claims Directive should put an end to printer manufacturers claiming green credentials if they do not support cartridge reuse. Also, many printer manufacturers advertise that they "recycled x million used cartridges" without mentioning what percentage of their total sales that number represents. In reality, this is often less than 10%, and hence way below the 80-90% reuse potential. The Green claims Directive should outlaw such misleading claims.





Review of the WEEE Directive

The EU 2012 WEEE Directive on waste from electrical and electronic equipment seeks to protect the environment and human health, contributes to sustainable production and consumption, and ensure efficient use of resources by preventing and recovering waste. In October 2022, the EU launched an online public consultation to evaluate its progress and assess whether the objectives are met and to what extent it supports a circular economy and environmentally sound management of WEEE.

In 2023, ETIRA voiced its concerns with the WEEE. As is supported by several EU studies, we always argued that in terms of promoting cartridge reuse, the WEEE is dysfunctional. Member States can reach the generic reuse / recycling percentage targets set under the WEEE without a single cartridge being reused. That's why cartridges need to get their own WEEE reuse target. Also, WEEE implementation is very different across EU Member States. Environmentfriendly cartridge reuse is made impossible as operators are confronted by a plethora of different and often outright contradictory rules and definitions and classifications of used cartridges. And for cartridges, the article 4 WEEE prohibition of specific design features or manufacturing processes that prevent WEEE from being re-used (eco-design) is a farce, because all cartridges on the EU market today have such illegal features! In addition, enforcement of WEEE compliance by national market surveillance authorities is often fully absent: imports of polluting single-use newbuild cartridges from the Far East by rogue traders without any registration in national WEEE registers and containing illegal chemicals are rampant in most EU countries.

ETIRA hopes that the review will turn the WEEE into a real tool to end single use of cartridges.

Ecolabels

Ecolables allow consumers to choose environmental-friendly products over others. Here we address the EU ecolabel and private ecolabels.

EU ecolabel: the EU Ecolabel has existed for decades. It allows consumers to identify the products which have the best environmental performance and is a tool for public authorities that want to buy green products, because the Ecolabel is part of the EU's recommended Green Public Procurement criteria (GPP) which public bodies may use when buying office equipment. Several years ago the EU defined an ecolable for printers. However, OEM's frustrated its development by refusing to produce compliant printers, under the pretext that its criteria were too strict. As a result, in the end the EU withdrew this Ecolable. But ETIRA continues to call for a separate Ecolabel for cartridges, the Green Claims directive may provide new impetus for that.

Private ecolables: Across Europe, several private Type-1 ecolables have printer cartridges in their eligible product listings. ETIRA welcomes this, provided that it is 100% credible: the eligibility criteria must be clear and ambitious, auditors checking companies using the label must be strict, and the ecolabel organisation must act decisively whenever it finds misuse of its label. If not, unscrupulous traders benefit from the good reputation of the ecolabel at the expense of those who make the extra effort and incur costs to comply. Moreover, end-users are misled into believing they are making an environmentally responsible choice when, in reality, they may be using polluting, illegal, or even hazardous products.

During 2023/2025, ETIRA was forced to act against violations in several instances. In Italy, the Elabel! programme is a desired tool, also because some public tenders require bidders to offer Elabel!-certified products. In 2023, ETIRA and others assessed the Elabel! programme and found shortcomings in its application to remanufactured (rigenerati) cartridges. The Elabel! approval process was based on a self-declaration subscription process with inadequate controls. Producers could apply for grouped approvals, where some individual products were compliant, but the majority were not. Following our protests, Elabel! published stricter eligibility criteria for remanufactured toner cartridges and implemented stricter

compliance inspection tools, ending the improper use.

In 2024, ETIRA asked ecolabel organisation Nordic Ecolabel to assess whether its accreditation of Ninestar products was still appropriate, given the USA import ban (see seperate section in this Activity Report).

ETIRA will continue to pursue abuses of ecolabels, and any other forms of greenwashing.



Right to Repair

In 2024, the EU approved the Right to Repair directive. By 2026, Member States must have implemented it into national law. The directive establishes measures to promote repair. Manufacturers of products (e.g., fridges or smartphones) that are subject to reparability requirements in EU law and listed in Annex II of the Directive will have to repair those products within a reasonable time and for a reasonable price. Such repairability requirements are set in the product-specific legislation, mainly implementing the Ecodesign Directive and the ESPR. In addition, manufacturers will be prohibited from using contractual clauses, hardware or software techniques that impede repair of those goods unless justified by legitimate and objective factors. They will be also obliged to provide access to spare parts at reasonable prices. Manufacturers are required to make available information on their repair services to consumers in an easily accessible manner (website, manuals, etc) and inform consumers on a free access website about the indicative prices charged for typical repairs.

By 2027, consumers will be able to find repairers through an online European Repair Platform. The Directive also provides consumers with an extra year of the legal guarantee if they choose to repair the product instead of replacing it under the legal guarantee. Repairers will be able to offer to consumers information about their repair services via a standardised European Repair Information Form, allowing consumers to compare different repair offers.



EU Green Public Procurement (GPP) criteria recommend using remanufactured cartridges – ETIRA actions

The EU has model criteria for public authorities that want to buy environment-friendly printers and cartridges. *https://ec.europa.eu/ environment/gpp/eu_gpp_criteria_en.htm* The criteria endorse sustainable printing by lowering the environmental footprint of printers, and favor the use of remanufactured cartridges over new. The new criteria set, which also includes requirements re. the printer's plastics, chemicals, emissions, etc., may be used by public authorities when they solicit offers for imaging equipment through tenders.

The criteria also require that printers must comply with existing EU regulations on REACH, WEEE etc,. and must meet standards for emissions, noise, energy consumption, and not contain hazardous substances. They must offer warranties and allow the use of remanufactured cartridges. Any firmware update must not prevent the use of reused / remanufactured consumables. Take-back programmes are also requested, and there are criteria for consumables supplied under a managed print contract. Cartridges must comply with page yield standards and must not be designed to limit the ability to reuse/remanufacture them.

To help a public body or authority on how to purchase "green" printer cartridges, ETIRA produced a note members can send to the authority.

2023 EU general product safety regulation

The new regulation 2023/988 on general product safety will enhance consumer protection and level the playing field for businesses. It puts obligations on economic operators to place or make available on the market only safe products, taking into account product characteristics such as design, technical features, composition, packaging and instructions, labelling, any warnings and safety instructions and information. For each product covered by the regulation, there has to be a responsible economic operator in the EU (an EU manufacturer, importer, authorised representative or a fulfilment service provider) entrusted with tasks relating to the safety of the product.

The regulation obliges the importer to ensure that products comply with the regulation's general safety requirement, that their contact details are on the products, check that products are accompanied by clear instructions and safety information, inform manufacturers and national market surveillance authorities if they believe a dangerous product is on the market, and ensure the public is alerted.

Distributors must ensure manufacturers and, where applicable, importers comply with the regulation's requirements, and refuse to place on the market any non-complying products. They must inform manufacturers, importers and national surveillance authorities if they believe a dangerous product is on the market and ensure suitable action is taken.

The new regulation is key for our industry, as hundreds of thousands of unsafe, unhealthy and wrongly labeled, new non-OEM cartridges are shipped to EU consumers via the online sales platforms every year, eclipsing EU health and safety checks.

ETIRA Members Only webinar on compliance

Being fully compliant with the growing number of EU and national regulations like GPSR, ESPR, CE marking, WEEE, RoHS, REACH, CLP, packaging, etc. is a major challenge for cartridge remanufacturers. But it is one of the key ways in which we distinguish our products from the thousands of often non-compliant new singleuse cartridges imported from SE Asia every day.

To brief our members on the complex set of rules and obligations, ETIRA held a 3-hr Members' Only webinar in April 2025 on the matter. In addition, a live session assessed the compliance of some cartridge models, showing their (non-)compliance in real time. The interactive session was well attended, more webinars will follow. Many thanks to speakers Javier Martinez and Volker Kappius!

Networking



ETIRA booth at Ambiente, February 2025

Organising events on a regular basis is a key activity of ETIRA: meeting current and new partners, in both informal and formal settings, helps to create new business and raise the overall industry market share.

ETIRA at 2024 and 2025 Frankfurt remanexpo trade shows Ambiente

In 2024 and 2025, ETIRA again exhibited at the 5-day remanexpo at the international trade show Ambiente. This largest European show for office supplies is held at Frankfurter Messe in Frankfurt, Germany. From our joint booth with co-sponsoring members, we met Members, prospects, OEM rep's, and distributed flyers urging visitors to buy remanufactured cart's and services from ETIRA Members only. In the show's



2024 annual meeting in Brussels



Networking at the 2024 annual meeting

speaker programme, ETIRA 's Javier Martinez, David Connett and Vincent van Dijk presented latest industry developments.

ETIRA 2024 annual meeting in Brussels

On 15/16 May 2024, ETIRA held its annual meeting in Brussels, in the context of the "The Recycler Live Europe" conference. With approx. 100 delegates it was again the #1 event to learn from speakers, meet fellow industry members and hear the latest industry data. Many thanks to The Recycler and the sponsors for making this event happen!.

The 2025 annual meeting will be held on 13-15 May 2025 in Tallinn, Estonia.





Public Relations

ETIRA's role includes raising awareness about the industry among the general public. We stress that remanufacturing used OEM cartridges is a high-tech, innovative and dynamic activity, good for both the customer and for the environment. We work with professional PR service providers.

ETIRA booth at annual Ambiente international trade show

To help ETIRA Members grow their business, ETIRA exhibits every year at the annual Ambiente trade show (formerly: Paperworld) held in January/February in Frankfurt. We use the booth to showcase our industry, and inform many resellers and distributors from all over Europe about remanufactured cartridges, and the added benefits of trading with an ETIRA Member. We distribute leaflets and info in different languages. We answer enquiries about ETIRA and the Code of Conduct logo and product label, outline the advantages of buying from an ETIRA member, and inform visitors why ETIRA Members provide value for money.

Annual meetings

Every year we organise our annual statutory meeting in a European city, often jointly with industry magazine *The Recycler*. The event provides extended learning from top-speakers about latest industry developments, and firsthand networking opportunities.

News, website, social media, video's

Frequent Newsflashes are sent to members to inform them about industry developments and ETIRA activities.

ETIRA operates a website *(www.etira.org)* for the general public to learn about the benefits of inkjet and toner remanufacturing, and to enhance the general industry image. The website also lists all ETIRA members, allowing clients to find suppliers instantly.

ETIRA social media presence

ETIRA has a dedicated Linkedin platform, Twitter, and Facebook page, publishing ETIRA news, in addition to outlets like industry magazine The Recycler and other publications.



ETIRA videos

ETIRA has produced a series of short animated videos to support our Reuse, Reduce, Recycle message, the second of the series focuses on Reduce. The videos are shared through our social media platforms and on our website.

ETIRA hand-out: Say "NO!" to single-use cartridges!

ETIRA has produced a 1-pager that sets out the reasons why you should stay away from single-use cartridges (SUC's). To support your sales, members can print and distribute it to customers. Alternatively, you can order copies from the Secretariat: *info@etira.org*.

ETIRA Code of Conduct

The ETIRA Code of Conduct is a code of good business practice. Its obligations include social and environmental responsibility, promotion of top-quality and innovative products, clear warranties, compliance with laws and regulations at national and international level, and ensuring consumer and worker safety and health. The Code also includes a clear obligation to refrain from trading patent-infringing newbuilts. All ETIRA members must comply with the Code. The ETIRA Code of Conduct is available for download from the ETIRA website.

ETIRA cartridge certification label

In addition to its existing Code of Conduct, which is a collective mark certifying the ETIRA member company, ETIRA runs a "members only" cartridge certification label. The label certifies a product, and differentiates remanufactured Original Equipment Manufacturer (OEM) cartridges from new OEM and non-OEM newbuilds. The certification raises the profile of remanufactured products produced by ETIRA members and eliminates confusion about which cartridges offer a very good environmental performance and those which don't. The label is limited to ETIRA members through a qualification process and license agreement. The member- remanufacturer can apply the certification label not only to his own brand of cartridges, but also to any 3rd party brand of cartridges produced by that member in compliance with the label's license requirements.

To promote the label, ETIRA has published three brochures, freely available in six languages from our website: one for users, one for public tender buyers, and one for remanufacturers. By March 2025, over 2 million lables were sold by ETIRA members using the label.

ETIRA is assessing the possibility to make the label also available for refurbishment of printers.



ETIRA Bodies

ETIRA is the acronym of the European Toner & Inkjet Remanufacturers' Association aisbl/ ivzw. A non-profit organisation in accordance with Belgian law, its statutory seat is Brussels, Belgium, with a Secretary General's office in Breda, The Netherlands. ETIRA represents the interests of the European inkjet and toner cartridge remanufacturers and related service providers/collectors, etc. in Europe. Created in 2003, the current 35 ETIRA members now account for over 65% of industry turnover. A full up-to-date list of ETIRA Members and their contact details can be found on our website: *www.etira.org*

Today, ETIRA is the recognized industry body for all topics affecting cartridge remanufacturing, and registered in the EU Transparency Register.

In late 2023, ETIRA updated its statutes to conform with changes in the Belgian rules on organisations. And we widened our scope of work: ETIRA now also represents companies refurbishing imaging equipment.

General Assembly

The General Assembly is comprised of all ETIRA full Members and meets at least 1x per year. It sets the general guidelines of the Association, elects the Board of Directors, approves the annual accounts and budgets, etc.

Board of Directors

ETIRA's Board of Directors is elected by the General Assembly every other year, and composed of respected company representatives from the various sections of the cartridge remanufacturing industry across Europe. Meeting online or in person approx. 5-6 times per year, Board Members are not remunerated and carry their own travel expenses. The Board of Directors implements the General Assembly's guidelines, sets an annual work program, approves membership applications, prepares annual accounts and budgets, etc.

As per elections at the ETIRA 2023 general meeting, the ETIRA Board of Directors is currently composed of the following persons (mandate 2023-2025):

President	Javier Martinez	Turbon	E
Vice-President	Gerwald van der Gijp	Armor	F
Member	David Connett	The Recycler	UK
Member	Jan-Michael Sieg	КМР	D
Member	Peter Knak	IMEX	E
Member	Volker Kappius	Delacamp	D
Member	Milan Banjac	TIN Group	RO
Member	Sara Ferreri	SAPI	IT
Secretary General	Vincent van Dijk	Non-affiliated	NL/B

Secretariat

ETIRA aisbl/ivzw, European Toner & Inkjet Remanufacturers Association Vincent van Dijk, secretary general Haydnlaan 13, 4837 CS Breda The Netherlands Tel + 31 6 414 614 63 info@etira.org www.etira.org (Registered address: Henri Wafelaertsstraat 34, 1060 Bruxelles) EU Transparency Register nr. 66749712601-11



ETIRA is the non-profit trade association for the European companies involved in state-of-the-art toner and/or inkjet remanufacturing and their business partners. Every day, remanufacturers bring the European consumers and businesses a first-class high quality product which is competitively priced and, thanks to re-using natural resources, makes a major contribution to the European environment and a cleaner world. Yearly, the industry adds an average 1,5 bn euro to the European economy, directly and indirectly provides 16,000-20,000 jobs, and prevents 300,000 m3 of waste from going to landfill. Visit www.etira.org for more information.



ETIRA is the non-profit trade association for the European companies involved in state-of-the-art toner and/or inkjet remanufacturing and their business partners. Every day, remanufacturers bring the European consumers and businesses a first-class high quality product which is competitively priced and, thanks to re-using natural resources, makes a major contribution to the European environment and a cleaner world. Yearly, the industry adds an average 1,5 bn euro to the European economy, directly and indirectly provides 16,000-20,000 jobs, and prevents 300,000 m3 of waste from going to landfill. Visit www.etira.org for more information.